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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,989	06/26/2003	Michael A. Gavlak	65899-0685	5441

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DELPHI TECHNOLOGIES, INC.
M/C 480-410-202
PO BOX 5052
TROY, MI 48007

EXAMINER	
ALI, MOHAMMAD	

ART UNIT	PAPER NUMBER
2166	

DATE MAILED: 10/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/606,989	GAVLAK ET AL.	
	Examiner	Art Unit	
	Mohammad Ali	2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 4-21* is/are pending in the application.

4a) Of the above claim(s) *2 and 3* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 4-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 June 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claim 1 and 4-21 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1 and 4-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 5,777,877 (henceforth referred to as Beppu et al.) in view of Maki et al. ('Maki' henceforth referred as Make et al.) USP, 5,307,261.

Claim 1 is anticipated by Beppu et al. as follows: **A system for managing a change to an item associated with a complex system of inter-related items comprising: a database comprising a plurality of records, wherein each record includes information concerning an item associated with the complex system, said information including an identification of other items that could be affected by a change to the changed item** (Abstract, C13:L46-59, C2:L52-C3:L3)**; and a computer-user interface displaying a user-updateable list of affected items and a user-updateable list of non-affected items** (C7:L3-11, figure 6 shows an edit menu which indicates that users can modify the parts in the hierarchy) and **a user-updateable list of items that require additional analysis before said items can be assigned to either said affected items list or said non-affected items list** (figure 13 shows the UI element used to further classify objects).

Beppu et al. does not explicitly indicate claims user-updateable list of affected items and a user-updateable list of non-affected items.

Maki et al. teaches user-updateable list of affected items and a user-updateable list of non-affected items as, each end item defined within Master Item data 56 has assemblies and components which are recorded in the Bill of Material (BOM) component data at reference numeral 58, which may be utilized to define the "basic" configuration of individual assemblies, as well as specially engineered assemblies for customers. Customer contract information is set forth within database 60 and 62 and ordered configurations are recorded in End Item Configuration header 64. An Engineering Change/Manufacturing Engineering Change "updateable" headers are

created when a customer contracted configuration has specially engineered assemblies and parts and this information is set forth at reference numeral 66. Engineering change affected items are listed at reference numeral 68 and location effected items are listed at reference numeral 70, see col. 5, lines 23-38, Fig. 2, Maki et al.

It would have been obvious to one ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because user-updateable list of affected items and a user-updateable list of non-affected items of Maki et al teaching would have allowed Beppu et al systems to track multiple designed end items configurations and their resultant effect on their basic end items as suggested by Maki et al at col. 1, lines 24-27.

Claim 4 is anticipated by Beppu et al. as in claim 1, **wherein said items include parts used in an assembled end product and documents associated with said assembled end product** (figure 14 shows that the system contains drawing documents associated with each component and part in the system, and the records for the components of the instant part).

Claim 5 is anticipated by Beppu et al. as in claim 1, **wherein said computer-user interface further includes a user-updateable input field for receiving an identifier of said item to be changed** (C11:L13-16, figure 16 element S46); **and a list of related items that could be affected by a change made to said item to be changed** (C7:L3-11, figure 6).

Claim 6 is anticipated by Beppu et al. as in claim 5, **wherein said list of related items is generated automatically in response to a query to said database based upon said identifier of said changed item in said input field** (Abstract, C13:L46-59, C2:L52-C3:L3).

Claim 7 is anticipated by Beppu et al. as in claim 5, **wherein said computer-user interface further includes one or more visual indicators associated with said items on said related items list that indicate if said related items are assigned to said list of affected items, said list of items that require additional analysis, and said list of non-affected items** (figure 6 indicates by the fill and border combinations whether or not the part will need to undergo recomposition).

Claim 8 is anticipated by Beppu et al. as in claim 1, **further including one or more predetermined rules used by the system to automatically assign one or more of said items that could be affected to one of said list of affected items, said list of items that require additional analysis, and said list of non-affected items** (figure 13 shows the UI element used to further classify objects).

Claim 11 is anticipated by Beppu et al. as follows: **A method of managing changes to items associated with a complex system of inter-related items comprising: searching a database for items related to a changed item** (figure 17 shows the hierarchal schema used to store the parts and their relationships); **assigning each of said related items to (i) an affected items list, (ii) a non-affected items list, and (iii) an analysis required list, depending upon whether each of the related items (i) is affected by a change to said changed item, (ii) is not affected**

by a change to said changed item, and (iii) requires additional analysis to determine if the related item is affected or not affected (C8:L64-C9:L16, figure 12); **and wherein said affected items list, said non-affected items list, and said analysis required list, are incorporated into a computer-user interface** (C7:L3-11, figure 6 shows an edit menu which indicates that users can modify the parts in the hierarchy, figure 13 shows the UI element used to further classify objects).

Beppu et al. does not explicitly indicate claims user-updateable list of affected items and a user-updateable list of non-affected items.

Maki et al. teaches user-updateable list of affected items and a user-updateable list of non-affected items as, each end item defined within Master Item data 56 has assemblies and components which are recorded in the Bill of Material (BOM) component data at reference numeral 58, which may be utilized to define the "basic" configuration of individual assemblies, as well as specially engineered assemblies for customers. Customer contract information is set forth within database 60 and 62 and ordered configurations are recorded in End Item Configuration header 64. An Engineering Change/Manufacturing Engineering Change "updateable" headers are created when a customer contracted configuration has specially engineered assemblies and parts and this information is set forth at reference numeral 66. Engineering change affected items are listed at reference numeral 68 and location effected items are listed at reference numeral 70, see col. 5, lines 23-38, Fig. 2, Maki et al.

It would have been obvious to one ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because

user-updateable list of affected items and a user-updateable list of non-affected items of Maki et al teaching would have allowed Beppu et al systems to track multiple designed end items configurations and their resultant effect on their basic end items as suggested by Maki et al at col. 1, lines 24-27.

Claim 12 is anticipated by Beppu et al. as in claim 11, **wherein a human user manually assigns at least some of said related items to said affected items list, said non-affected items list, and said analysis required list** (figure 13 shows the UI element used to further classify objects, figure 18 elements S65 & S56); **and wherein at least some of said related items are automatically assigned to said affected items list, said non-affected items list, and said analysis required list by pre-established rules applied by computer software** (C8:L64-C9:L16, figure 12).

Claim 13 is anticipated by Beppu et al. as in claim 11, **further including the steps: generating a list of related items on said computer-user interface in response to said database search** (figure 6); **and providing a visual indication associated with each of said related items that indicates if said related item has been assigned to said affected list, said non-affected list, and said analysis required list** (figure 6 indicates by the fill and border combinations whether or not the part will need to undergo recomposition).

Claim 14 is anticipated by Beppu et al. as in claim 11, **further including the steps: analyzing items assigned to said analysis required list to determine if said analysis required items would be affected by a change to said changed item** (figure 1 elements 4 & 10 {automatic} element 11 {manual}); **and assigning said**

analysis required items to said affected items list and said non-affected items list, depending upon whether or not said analysis required items would be affected by a change to said changed item (figure 5 element S21).

Claim 15 is anticipated by Beppu et al. as in claim 14, **wherein said step of assigning said analysis required items is performed manually by a human user** (C4:L16-21, figure 1 element 11).

Claim 16 is anticipated by Beppu et al. as in claim 14, **wherein one or more of said searching, said analyzing, and said assigning steps are repeated until no items remain on said analysis required list** (see the feedback paths of figure 4).

Claim 17 is anticipated by Beppu et al. as follows: **A system for managing a change to an item associated with an assembled end product, comprising: a database comprising a plurality of records, wherein each record includes information concerning an item associated with the assembled end product, said information including an identification of other items that could be affected by a change in said associated item** (Abstract, C13:L46-59, C2:L52-C3:L3); **a computer-user interface configured to display a user-updateable list of affected items, a user-updateable list of non-affected items, and a user-updateable list of items requiring additional analysis** (C7:L3-11, figure 6 shows an edit menu which indicates that users can modify the parts in the hierarchy, figure 13 shows the UI element used to further classify objects); **wherein said computer-user interface further includes a list of related items that could be affected by a change to the changed item, said related items list being automatically generated in response to a query of said**

database (C7:L3-11, figure 6, Abstract, C13:L46-59, C2:L52-C3:L3); **and wherein said computer-user interface is configured to permit a human user to manually assign items on said related items to said affected items list, said non-affected items list, and said analysis required list** (figure 13 shows the UI element used to further classify objects, figure 18 elements S65 & S56).

Beppu et al. does not explicitly indicate claims user-updateable list of affected items and a user-updateable list of non-affected items.

Maki et al. teaches user-updateable list of affected items and a user-updateable list of non-affected items as, each end item defined within Master Item data 56 has assemblies and components which are recorded in the Bill of Material (BOM) component data at reference numeral 58, which may be utilized to define the "basic" configuration of individual assemblies, as well as specially engineered assemblies for customers. Customer contract information is set forth within database 60 and 62 and ordered configurations are recorded in End Item Configuration header 64. An Engineering Change/Manufacturing Engineering Change "updateable" headers are created when a customer contracted configuration has specially engineered assemblies and parts and this information is set forth at reference numeral 66. Engineering change affected items are listed at reference numeral 68 and location effected items are listed at reference numeral 70, see col. 5, lines 23-38, Fig. 2, Maki et al.

It would have been obvious to one ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because user-updateable list of affected items and a user-updateable list of non-affected items

of Maki et al teaching would have allowed Beppu et al systems to track multiple designed end items configurations and their resultant effect on their basic end items as suggested by Maki et al at col. 1, lines 24-27.

Claim 18 is anticipated by Beppu et al. as in claim 17, **further comprising software that automatically assigns at least some of said related items to said affected items list, said non-affected items list, and said analysis required list based upon pre-determined rules** (C8:L64-C9:L16, figure 12).

Claim 19 is anticipated by Beppu et al. as in claim 17, further comprising a means for providing a visual indication associated with said related items list on said user-computer interface that indicates whether said items on said related items list have been assigned to said affected items list, said non-affected items list, or said analysis required list (figure 6 indicates by the fill and border combinations whether or not the part will need to undergo recomposition).

Claims 9, 10, 20 & 21 are taught by Beppu et al and Maki et al. as in claims 1, 4-8 & 11-19. However, Beppu et al. fails to explicitly indicate an undo function which can operate to undo all changes which were iterated by the system as a result of the last user input. Yet, a function which is used to undo a user's last action and all consequences of said user action would have been notoriously obvious to one of ordinary skill in the art at the time of invention, the undo has been a standard feature in mainstream computer application methods since *well before* the filing date of the instant application.

Thus it would have been notoriously obvious to one of ordinary skill in the art at the time of invention to have included the standard UI element of an undo function.

Conclusion

4. Combination of references teaches all the limitations as stated above.

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Setlak whose telephone number is (571) 272-4060. The examiner can normally be reached on M-F 10:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mohammad Ali
Primary Examiner
Art Unit 2166

MA
October 7, 2006